

### § 63.503

### 40 CFR Ch. I (7–1–11 Edition)

use of Method 25A, 40 CFR part 60, appendix A shall conform with the requirements in paragraphs (j)(1) and (j)(2) of this section.

(1) The organic HAP used as the calibration gas for Method 25A, 40 CFR part 60, appendix A shall be the single organic HAP representing the largest percent by volume of emissions.

(2) The use of Method 25A, 40 CFR part 63, appendix A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

(k) An owner or operator using a flare to comply with the requirements of this section shall conduct a compliance demonstration as specified in § 63.504(c).

(l) When the term “equipment” is used in subpart H of this part, the definition of this term in § 63.482(b) shall apply for the purposes of this subpart.

(m) The phrase “the provisions of subparts F, I, or U of this part” shall apply instead of the phrase “the provisions of subpart F or I of this part” throughout §§ 63.163 and 63.168, for the purposes of this subpart. In addition, the phrase “subparts F, I, and U” shall apply instead of the phrase “subparts F and I” in § 63.174(c)(2)(iii), for the purposes of this subpart.

(n) *Heat exchange system provisions.* The owner or operator of each affected source shall comply with the requirements of § 63.104 for heat exchange systems, with the exceptions noted in paragraphs (n)(1) through (n)(5) of this section.

(1) When the term “chemical manufacturing process unit” is used in § 63.104, the term “elastomer product process unit” (or EPPU) shall apply for the purposes of this subpart, with the exception noted in paragraph (n)(2) of this section.

(2) When the phrase “a chemical manufacturing process unit meeting the conditions of § 63.100(b)(1) through (b)(3) of this subpart, except for chemical manufacturing process units meeting the condition specified in § 63.100(c) of this subpart” is used in § 63.104(a), the term “an EPPU, except for EPPUs meeting the condition specified in

§ 63.480(b)” shall apply for the purposes of this subpart.

(3) When § 63.104 refers to Table 4 of subpart F of this part or Table 9 of subpart G of this part, the owner or operator is only required to consider organic HAP listed on Table 5 of this subpart.

(4) When § 63.104(c)(3) specifies the monitoring plan retention requirements, and when § 63.104(f)(1) refers to the record retention requirements in § 63.103(c)(1), the requirements in § 63.506(a) and § 63.506(h) shall apply, for the purposes of this subpart.

(5) When § 63.104(f)(2) requires information to be reported in the Periodic Reports required by § 63.152(c), the owner or operator shall instead report the information specified in § 63.104(f)(2) in the Periodic Reports required by § 63.506(e)(6), for the purposes of this subpart.

(6) The compliance date for heat exchange systems subject to the provisions of this section is specified in § 63.481(d)(6).

[62 FR 46925, Sept. 5, 1996, as amended at 62 FR 37722, July 15, 1997; 65 FR 38070, June 19, 2000; 76 FR 22592, Apr. 21, 2011]

### § 63.503 Emissions averaging provisions.

(a) This section applies to owners or operators of existing affected sources who seek to comply with § 63.483(b) by using emissions averaging rather than following the provisions of §§ 63.484, 63.485, 63.486, 63.494, and 63.501.

(1) The following emission point limitations apply to the use of these provisions:

(i) All emission points included in an emissions average shall be from the same affected source. There may be an emissions average for each individual affected source located at a plant site.

(ii)(A) If a plant site has only one affected source for which emissions averaging is being used to demonstrate compliance, the number of emission points allowed to be included in the emission average is limited to twenty. This number may be increased by up to five additional points if pollution prevention measures are used to control five or more of the emission points included in the emissions average.

(B) If a plant site has two or more affected sources for which emissions averaging is being used to demonstrate compliance, the number of emission points allowed in the emissions average for those affected sources is limited to twenty. This number may be increased by up to five additional emission points if pollution prevention measures are used to control five or more of the emission points included in the emissions averages.

(2) Compliance with the provisions of this section may be based on either organic HAP or TOC.

(3) For the purposes of the provisions in this section, whenever Method 18, 40 CFR part 60, appendix A, is specified within the paragraphs of this section or is specified by reference through provisions outside this section, Method 18 or Method 25A, 40 CFR part 60, appendix A, may be used. The use of Method 25A, 40 CFR part 60, appendix A, shall conform with the requirements in paragraphs (a)(3)(i) and (a)(3)(ii) of this section.

(i) The organic HAP used as the calibration gas for Method 25A, 40 CFR part 60, appendix A, shall be the single organic HAP representing the largest percent by volume of the emissions.

(ii) The use of Method 25A, 40 CFR part 60, appendix A, is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

(b) Unless an operating permit application has been submitted, the owner or operator shall develop and submit for approval an Emissions Averaging Plan containing all of the information required in § 63.506(e)(4) for all emission points to be included in an emissions average.

(c) Paragraphs (c)(1) through (c)(4) of this section describe the emission points that may be used to generate emissions averaging credits if control was applied after November 15, 1990 and if sufficient information is available to determine the appropriate value of credits for the emission point. Paragraph (c)(5) of this section discusses the use of pollution prevention in generating emissions averaging credits.

(1) Storage vessels, batch front-end process vents, aggregate batch vent streams, continuous front-end process vents, and process wastewater streams that are determined to be Group 2 emission points.

(2) Storage vessels, continuous front-end process vents, and process wastewater streams that are determined to be Group 1 emission points and that are controlled by a technology that the Administrator or permitting authority agrees has a higher nominal efficiency than the reference control technology. Information on the nominal efficiencies for such technologies shall be submitted and approved as provided in paragraph (i) of this section.

(3) Batch front-end process vents and aggregate batch vent streams that are determined to be Group 1 emission points and that are controlled to a level more stringent than the applicable standard.

(4) Back-end process operations that are controlled such that organic HAP emissions from the back-end process operation are less than would be achieved by meeting the residual organic HAP limits in § 63.494. For the purposes of the emission averaging provisions in this section, all back-end process operations at an affected facility shall be considered a single emission point.

(5) The percent reduction for any storage vessel, batch front-end process vent, aggregate batch vent stream, continuous front-end process vent, and process wastewater stream shall be determined using the procedures specified in paragraph (j) of this section.

(i) For a Group 1 storage vessel, batch front-end process vent, aggregate batch vent stream, continuous front-end process vent, or process wastewater stream, the pollution prevention measure shall reduce emissions more than if the reference control technology or standard had been applied to the emission point instead of the pollution prevention measure, except as provided in paragraph (c)(5)(ii) of this section.

(ii) If a pollution prevention measure is used in conjunction with other controls for a Group 1 storage vessel, batch front-end process vent, aggregate batch vent stream, continuous front-

end process vent, or process wastewater stream, the pollution prevention measure alone does not have to reduce emissions more than the reference control technology or standard, but the combination of the pollution prevention measure and other controls shall reduce emissions more than if the applicable reference control technology or standard had been applied instead of the pollution prevention measure.

(d) The following emission points cannot be used to generate emissions averaging credits:

(1) Emission points already controlled on or before November 15, 1990 cannot be used to generate credits unless the level of control was increased after November 15, 1990. In this case, credit will be allowed only for the increase in control after November 15, 1990.

(2) Group 1 emission points, identified in paragraph (c)(2) of this section, that are controlled by a reference control technology cannot be used to generate credits unless the reference control technology has been approved for use in a different manner and a higher nominal efficiency has been assigned according to the procedures in paragraph (i) of this section.

(3) Emission points on nonoperating EPPU cannot be used to generate credits. EPPU that are shutdown cannot be used to generate credits or debits.

(4) Maintenance wastewater cannot be used to generate credits. Wastewater streams treated in biological treatment units cannot be used to generate credits. These two types of wastewater cannot be used to generate credits or debits. For the purposes of this section, the terms wastewater and wastewater stream are used to mean process wastewater.

(5) Emission points controlled to comply with a State or Federal rule other than this subpart cannot be used to generate credits, unless the level of control has been increased after November 15, 1990 to a level above what is required by the other State or Federal rule. Only the control above what is required by the other State or Federal rule will be credited. However, if an emission point has been used to generate emissions averaging credit in an approved emissions average, and the

emission point is subsequently made subject to a State or Federal rule other than this subpart, the emission point may continue to generate emissions averaging credit for the purpose of complying with the previously approved emissions average.

(e) For all emission points included in an emissions average, the owner or operator shall perform the following tasks:

(1) Calculate and record monthly debits for all Group 1 emission points that are controlled to a level less stringent than the reference control technology or standard for those emission points. The Group 1 emission points are identified in paragraphs (c)(2) through (c)(4) of this section. Equations in paragraph (g) of this section shall be used to calculate debits.

(2) Calculate and record monthly credits for all Group 1 and Group 2 emission points that are overcontrolled to compensate for the debits. Equations in paragraph (h) of this section shall be used to calculate credits. Emission points and controls that meet the criteria of paragraph (c) of this section may be included in the credit calculation, whereas those described in paragraph (d) of this section shall not be included.

(3) Demonstrate that annual credits calculated according to paragraph (h) of this section are greater than or equal to debits calculated for the same annual compliance period according to paragraph (g) of this section.

(i) The owner or operator may choose to include more than the required number of credit-generating emission points in an emissions average in order to increase the likelihood of being in compliance.

(ii) The initial demonstration in the Emissions Averaging Plan or operating permit application that credit-generating emission points will be capable of generating sufficient credits to offset the debits from the debit-generating emission points shall be made under representative operating conditions. After the compliance date, actual operating data shall be used for all debit and credit calculations.

(4) Demonstrate that debits calculated for a quarterly (3-month) period according to paragraph (g) of this

## Environmental Protection Agency

## § 63.503

section are not more than 1.30 times the credits for the same period calculated according to paragraph (h) of this section. Compliance for the quarter shall be determined based on the ratio of credits and debits from that quarter, with 30 percent more debits than credits allowed on a quarterly basis.

(5) Record and report quarterly and annual credits and debits in the Periodic Reports as specified in § 63.506(e)(6). Every fourth Periodic Report shall include a certification of compliance with the emissions averaging provisions as required by § 63.506(e)(6)(x)(C)(2).

(f) Debits and credits shall be calculated in accordance with the methods and procedures specified in paragraphs (g) and (h) of this section, respectively, and shall not include emissions during the following periods:

(1) [Reserved]

(2) Emissions during periods of monitoring excursions, as defined in § 63.505 (g) or (h). For these periods, the cal-

culatation of monthly credits and debits shall be adjusted as specified in paragraphs (f)(2)(i) through (f)(2)(iii) of this section.

(i) No credits would be assigned to the credit-generating emission point.

(ii) Maximum debits would be assigned to the debit-generating emission point.

(iii) The owner or operator may demonstrate to the Administrator that full or partial credits or debits should be assigned using the procedures in paragraph (l) of this section.

(g) Debits are generated by the difference between the actual emissions from a Group 1 emission point that is uncontrolled or is controlled to a level less stringent than the applicable reference control technology or standard and the emissions allowed for the Group 1 emission point. Debits shall be calculated as follows:

(1) Source-wide debits shall be calculated using Equation 33. Debits and all terms of the equation are in units of megagrams per month (Mg/month):

$$\begin{aligned} \text{Debits} = & \sum_{i=1}^n (\text{ECFEPV}_{i\text{ACTUAL}} - (0.02) \text{ECFEPV}_{i\text{u}}) + \sum_{i=1}^n (\text{ES}_{i\text{ACTUAL}} - (0.05) \text{ES}_{i\text{u}}) \\ & + (\text{EBEP}_{\text{ACTUAL}} - \text{EBEP}_{\text{c}}) + \sum_{i=1}^n (\text{EWW}_{i\text{ACTUAL}} - \text{EWW}_{i\text{c}}) \\ & + \sum_{i=1}^n (\text{EBFEPV}_{i\text{ACTUAL}} - (0.1) \text{EBFEPV}_{i\text{u}}) + \sum_{i=1}^n (\text{EABV}_{i\text{ACTUAL}} - (0.1) \text{EABV}_{i\text{u}}) \quad [\text{Eq. 33}] \end{aligned}$$

Where:

$\text{ECFEPV}_{i\text{ACTUAL}}$  = Emissions from each Group 1 continuous front-end process vent  $i$  that is uncontrolled or is controlled to a level less stringent than the applicable reference control technology.  $\text{ECFEPV}_{i\text{ACTUAL}}$  is calculated according to paragraph (g)(2)(iii) of this section.

$(0.02)\text{ECFEPV}_{i\text{u}}$  = Emissions from each Group 1 continuous front-end process vent  $i$  if the applicable reference control technology had been applied to the uncontrolled emissions.  $\text{ECFEPV}_{i\text{u}}$  is calculated according to paragraph (g)(2)(ii) of this section.

$\text{ES}_{i\text{ACTUAL}}$  = Emissions from each Group 1 storage vessel  $i$  that is uncontrolled or is controlled to a level less stringent than the applicable reference control technology or standard.  $\text{ES}_{i\text{ACTUAL}}$  is calculated

according to paragraph (g)(3) of this section.

$(0.05)\text{ES}_{i\text{u}}$  = Emissions from each Group 1 storage vessel  $i$  if the applicable reference control technology or standard had been applied to the uncontrolled emissions.  $\text{ES}_{i\text{u}}$  is calculated according to paragraph (g)(3) of this section.

$\text{EBEP}_{\text{ACTUAL}}$  = Emissions from back-end process operations that do not meet the residual organic HAP limits in § 63.494.  $\text{EBEP}_{\text{ACTUAL}}$  is calculated according to paragraph (g)(4)(i) of this section.

$\text{EBEP}_{\text{c}}$  = Emissions from back-end process operations if the residual organic HAP limits in § 63.494(a) were met.  $\text{EBEP}_{\text{c}}$  is calculated according to paragraph (g)(4)(ii) of this section.

$\text{EWW}_{i\text{ACTUAL}}$  = Emissions from each Group 1 wastewater stream  $i$  that is uncontrolled

or is controlled to a level less stringent than the applicable reference control technology.  $EW_{iACTUAL}$  is calculated according to paragraph (g)(5) of this section.

$EW_{ic}$  = Emissions from each Group 1 wastewater stream  $i$  if the reference control technology had been applied to the uncontrolled emissions.  $EW_{ic}$  is calculated according to paragraph (g)(5) of this section.  $EBFEPV_{iACTUAL}$  = Emissions from each Group 1 batch front-end process vent stream  $i$  that is uncontrolled or is controlled to a level less stringent than the applicable standard.  $EBFEPV_{iACTUAL}$  is calculated according to paragraph (g)(6)(ii) of this section.

(0.1)  $EBFEPV_{iu}$  = Emissions from each Group 1 batch front-end process vent  $i$  if the applicable standard had been applied to the uncontrolled emissions.  $EBFEPV_{iu}$  is calculated according to paragraph (g)(6)(i) of this section.

$EABV_{iACTUAL}$  = Emissions from each Group 1 aggregate batch vent stream  $i$  that is uncontrolled or is controlled to a level less stringent than the applicable standard.  $EABV_{iACTUAL}$  is calculated according to paragraph (g)(7)(iii) of this section.

(0.1)  $EABV_{iu}$  = Emissions from each Group 1 aggregate batch vent stream  $i$  if the appli-

cable standard had been applied to the uncontrolled emissions.  $EABV_{iu}$  is calculated according to paragraph (g)(7)(ii) of this section.

$n$  = The number of emission points being included in the emissions average.

(2) Emissions from continuous front-end process vents shall be calculated as follows:

(i) For purposes of determining continuous front-end process vent stream flow rate, organic HAP concentrations, and temperature, the sampling site shall be after the final product recovery device, if any recovery devices are present; before any control device (for continuous front-end process vents, recovery devices shall not be considered control devices); and before discharge to the atmosphere. Method 1 or 1A of 40 CFR part 60, appendix A, shall be used for selection of the sampling site.

(ii)  $ECFEPV_{iu}$  for each continuous front-end process vent  $i$  shall be calculated using Equation 34.

$$ECFEPV_{iu} = \left( 2.494 \times 10^{-9} \right) Qh \left( \sum_{j=1}^n C_j M_j \right) \quad [\text{Eq. 34}]$$

where:

$ECFEPV_{iu}$  = Uncontrolled continuous front-end process vent emission rate from continuous front-end process vent  $i$ , Mg/month.

$Q$  = Vent stream flow rate, dry standard  $m^3/\text{min}$ , measured using Method 2, 2A, 2C, or 2D of 40 CFR part 60, appendix A, as appropriate.

$h$  = Monthly hours of operation during which positive flow is present in the continuous front-end process vent, hr/month.

$C_j$  = Concentration, ppmv, dry basis, of organic HAP  $j$  as measured by Method 18 or Method 25A of 40 CFR part 60, appendix A.

$M_j$  = Molecular weight of organic HAP  $j$ , gram per gram-mole.

$n$  = Number of organic HAP in stream.

(A) The values of  $Q$  and  $C_j$  shall be determined during a performance test conducted under representative operating conditions. The values of  $Q$  and  $C_j$  shall be established in the Notification of Compliance Status and shall be up-

dated as provided in paragraph (g)(2)(ii)(B) of this section.

(B) If there is a change in capacity utilization other than a change in monthly operating hours, or if any other change is made to the process or product recovery equipment or operation such that the previously measured values of  $Q$  and  $C_j$  are no longer representative, a new performance test shall be conducted to determine new representative values of  $Q$  and  $C_j$ . These new values shall be used to calculate debits and credits from the time of the change forward, and the new values shall be reported in the next Periodic Report.

(iii) The following procedures and equations shall be used to calculate  $ECFEPV_{iACTUAL}$ :

(A) If the continuous front-end process vent is not controlled by a control device or pollution prevention measure,  $ECFEPV_{iACTUAL} = ECFEPV_{iu}$ , where

ECFEPV<sub>iu</sub> is calculated according to the procedures contained in paragraphs (g)(2)(i) and (g)(2)(ii) of this section.

(B) If the continuous front-end process vent is controlled using a control

device or a pollution prevention measure achieving less than 98-percent reduction, ECFEPV<sub>iACTUAL</sub> is calculated using Equation 35.

$$\text{ECFEPV}_{i\text{ACTUAL}} = \text{ECFEPV}_{iu} \times \left( 1 - \frac{\text{Percent reduction}}{100\%} \right) \quad [\text{Eq. 35}]$$

Where:

ECFEPV<sub>iACTUAL</sub> = Emissions from each Group 1 continuous front-end process vent i that is uncontrolled or is controlled to a level less stringent than the reference control technology.

ECFEPV<sub>iu</sub> = Uncontrolled continuous front-end process vent emission rate from continuous front-end process vent i, Mg/month.

(1) The percent reduction shall be measured according to the procedures in §63.116 if a combustion control device is used. For a flare meeting the criteria in §63.116(a), or a boiler or process heater meeting the criteria in §63.116(b), the percent reduction shall be 98 percent. If a noncombustion control device is used, percent reduction shall be demonstrated by a performance test at the inlet and outlet of the device, or, if testing is not feasible, by a control design evaluation and documented engineering calculations.

(2) For determining debits from Group 1 continuous front-end process vents, product recovery devices shall not be considered control devices and

shall not be assigned a percent reduction in calculating ECFEPV<sub>iACTUAL</sub>. The sampling site for measurement of uncontrolled emissions shall be after the final uncontrolled recovery device. However, as provided in §63.113(a)(3), a Group 1 continuous front-end process vent may add sufficient product recovery to raise the TRE index value above 1.0, thereby becoming a Group 2 continuous front-end process vent. Such a continuous front-end process vent is not a Group 1 continuous front-end process vent and should, therefore, not be included in determining debits under this paragraph.

(3) Procedures for calculating the percent reduction of pollution prevention measures are specified in paragraph (j) of this section.

(3) Emissions from storage vessels shall be calculated using the procedures specified in §63.150(g)(3).

(4) Emissions from back-end process operations shall be calculated as follows:

(i) Equation 36 shall be used to calculate EBEP<sub>ACTUAL</sub>:

$$\text{EBEP}_{\text{ACTUAL}} = (1,000) \sum_{i=1}^n (C_i)(P_i) \quad [\text{Eq. 36}]$$

where:

EBEP<sub>ACTUAL</sub> = Actual emissions from back-end process operations, Mg/month.

C<sub>i</sub> = Residual organic HAP content of sample i, kg organic HAP per Mg latex or dry crumb rubber.

P<sub>i</sub> = Weight of latex or dry crumb rubber leaving the stripper represented by sample i, Mg.

(ii) Equation 37 shall be used to calculate EBEP<sub>c</sub>:

$$EBEP_C = (1,000)(HAP_{\text{limit}})(P_{\text{month}}) \quad [\text{Eq. 37}]$$

where:

EBEP<sub>c</sub> = Emissions from back-end process operations if the residual organic HAP limits in §63.494(a) were met, Mg/month.

HAP<sub>limit</sub> = Residual organic HAP limits in §63.494 of this subpart, kg organic HAP per Mg latex or dry crumb rubber.

P<sub>month</sub> = Weight of latex or dry crumb rubber leaving the stripper in the month, Mg.

(5) Emissions from wastewater shall be calculated using the procedures specified in §63.150(g)(5).

(6) Emissions from batch front-end process vents shall be calculated as follows:

(i) EBFEPV<sub>iu</sub> for each batch front-end process vent i shall be calculated using the procedures specified in §63.488(b).

(ii) The following procedures and equations shall be used to determine EBFEPV<sub>iACTUAL</sub>:

(A) If the batch front-end process vent is not controlled by a control device or pollution prevention measure, EBFEPV<sub>iACTUAL</sub> = EBFEPV<sub>iu</sub>, where EBFEPV<sub>iu</sub> is calculated according to the procedures in §63.488(b).

(B) If the batch front-end process vent is controlled using a control device or a pollution prevention measure achieving less than 90 percent reduction for the batch cycle, calculate EBFEPV<sub>iACTUAL</sub> using Equation 38, where percent reduction is for the batch cycle.

$$EBFEPV_{iACTUAL} = EBFEPV_{iu} \times \left( 1 - \frac{\text{Percent reduction}}{100\%} \right) \quad [\text{Eq. 38}]$$

(1) The percent reduction for the batch cycle shall be measured according to the procedures in §63.490(c)(2).

(2) The percent reduction for control devices shall be calculated according to the procedures in §63.490 (c)(2)(i) through (c)(2)(iii).

(3) The percent reduction of pollution prevention measures shall be calculated using the procedures specified in paragraph (j) of this section.

(7) Emissions from aggregate batch vents shall be calculated as follows:

(i) For purposes of determining aggregate batch vent stream flow rate, organic HAP concentrations, and temperature, the sampling site shall be before any control device and before discharge to the atmosphere. Method 1 or 1A of 40 CFR part 60, appendix A, shall be used for selection of the sampling site.

(ii) EABV<sub>iu</sub> for each aggregate batch vent i shall be calculated using Equation 39.

$$EABV_{iu} = (2.494 \times 10^{-9}) Qh \left( \sum_{j=1}^n C_j M_j \right) \quad [\text{Eq. 39}]$$

where:

EABV<sub>iu</sub> = Uncontrolled aggregate batch vent emission rate from aggregate batch vent i, Mg/month.

Q = Vent stream flow rate, dry standard cubic meters per minute, measured using Method 2, 2A, 2C, or 2D of 40 CFR part 60, appendix A, as appropriate.

h = Monthly hours of operation during which positive flow is present from the aggregate batch vent stream, hr/month.

C<sub>j</sub> = Concentration, ppmv, dry basis, of organic HAP j as measured by Method 18 of 40 CFR part 60, appendix A.

M<sub>j</sub> = Molecular weight of organic HAP j, gram per gram-mole.

n = Number of organic HAP in the stream.

## Environmental Protection Agency

## § 63.503

(A) The values of  $Q$  and  $C_j$  shall be determined during a performance test conducted under representative operating conditions. The values of  $Q$  and  $C_j$  shall be established in the Notification of Compliance Status and shall be updated as provided in paragraph (g)(7)(ii)(B) of this section.

(B) If there is a change in capacity utilization other than a change in monthly operating hours, or if any other change is made to the process or product recovery equipment or operation such that the previously measured values of  $Q$  and  $C_j$  are no longer representative, a new performance test shall be conducted to determine new representative values of  $Q$  and  $C_j$ . These new values shall be used to calculate debits and credits from the time

of the change forward, and the new values shall be reported in the next Periodic Report.

(iii) The following procedures and equations shall be used to calculate  $EABV_{iACTUAL}$ :

(A) If the aggregate batch vent is not controlled by a control device or pollution prevention measure,  $EABV_{iACTUAL} = EABV_{iu}$ , where  $EABV_{iu}$  is calculated according to the procedures in paragraphs (g)(7)(i) and (g)(7)(ii) of this section.

(B) If the aggregate batch vent stream is controlled using a control device or a pollution prevention measure achieving less than 90 percent reduction, calculate  $EABV_{iACTUAL}$  using Equation 40.

$$EABV_{iACTUAL} = EABV_{iu} \times \left( 1 - \frac{\text{Percent reduction}}{100\%} \right) \quad [\text{Eq. 40}]$$

(1) The percent reduction for control devices shall be determined according to the procedures in § 63.490(e).

(2) The percent reduction of pollution prevention measures shall be calculated according to the procedures specified in paragraph (j) of this section.

(h) Credits are generated by the difference between emissions that are allowed for each Group 1 and Group 2 emission point and the actual emis-

sions from that Group 1 or Group 2 emission point that has been controlled after November 15, 1990 to a level more stringent than what is required by this subpart or any other State or Federal rule or statute. Credits shall be calculated as follows:

(1) Source-wide credits shall be calculated using Equation 41. Credits and all terms of the equation are in units of Mg/month, and the baseline date is November 15, 1990:

$$\begin{aligned} \text{Credits} = & D \sum_{i=1}^n ((0.02) ECFEPV1_{iu} - ECFEPV1_{iACTUAL}) + D \sum_{i=1}^m (ECFEPV2_{iBASE} - ECFEPV2_{iACTUAL}) \\ & + D \sum_{i=1}^n ((0.05) ES1_{iu} - ES1_{iACTUAL}) + D \sum_{i=1}^m (ES2_{iBASE} - ES2_{iACTUAL}) + D (EBEP_c) - (EBEP_{ACTUAL}) \\ & + D \sum_{i=1}^n (EWW1_{ic} - EWW1_{iACTUAL}) + D \sum_{i=1}^m (EWW2_{iBASE} - EWW2_{iACTUAL}) \\ & + D \sum_{i=1}^n ((0.1) EBFEPV1_{iu} - EBFEPV1_{iACTUAL}) + D \sum_{i=1}^n (EABV1_{iu} - EABV1_{iACTUAL}) \\ & + D \sum_{i=1}^m (EBFEPV2_{iBASE} - EBFEPV2_{iACTUAL}) + D \sum_{i=1}^m (EABV2_{iBASE} - EABV2_{iACTUAL}) \quad [\text{Eq. 41}] \end{aligned}$$



Where:

D = Discount factor = 0.9 for all credit generating emission points, except those controlled by a pollution prevention measure; discount factor = 1.0 for each credit generating emission point controlled by a pollution prevention measure (i.e., no discount provided).

ECFEPV<sub>1ACTUAL</sub> = Emissions for each Group 1 continuous front-end process vent i that is controlled to a level more stringent than the reference control technology. ECFEPV<sub>1ACTUAL</sub> is calculated according to paragraph (h)(2)(ii) of this section.

(0.02) ECFEPV<sub>1iu</sub> = Emissions from each Group 1 continuous front-end process vent i if the reference control technology had been applied to the uncontrolled emissions. ECFEPV<sub>1iu</sub> is calculated according to paragraph (h)(2)(i) of this section.

ECFEPV<sub>2ACTUAL</sub> = Emissions from each Group 2 continuous front-end process vent i that is controlled. ECFEPV<sub>2ACTUAL</sub> is calculated according to paragraph (h)(2)(iii) of this section.

ECFEPV<sub>2IBASE</sub> = Emissions from each Group 2 continuous front-end process vent i at the baseline date. ECFEPV<sub>2IBASE</sub> is calculated in paragraph (h)(2)(iv) of this section.

ES<sub>1ACTUAL</sub> = Emissions from each Group 1 storage vessel i that is controlled to a level more stringent than the reference control technology or standard. ES<sub>1ACTUAL</sub> is calculated according to paragraph (h)(3) of this section.

(0.05) ES<sub>1iu</sub> = Emissions from each Group 1 storage vessel i if the reference control technology had been applied to the uncontrolled emissions. ES<sub>1iu</sub> is calculated according to paragraph (h)(3) of this section.

ES<sub>2ACTUAL</sub> = Emissions from each Group 2 storage vessel i that is controlled. ES<sub>2ACTUAL</sub> is calculated according to paragraph (h)(3) of this section.

ES<sub>2IBASE</sub> = Emissions from each Group 2 storage vessel i at the baseline date. ES<sub>2IBASE</sub> is calculated in paragraph (h)(3) of this section.

EBEP<sub>ACTUAL</sub> = Actual emissions from back-end process operations, Mg/month. EBEP<sub>ACTUAL</sub> is calculated in paragraph (h)(4)(i) of this section.

EBEP<sub>c</sub> = Emissions from back-end process operations if the residual organic HAP limits in § 63.494(a) were met, Mg/month. EBEP<sub>c</sub> is calculated in paragraph (h)(4)(ii) of this section.

EWV<sub>1ACTUAL</sub> = Emissions from each Group 1 wastewater stream i that is controlled to a level more stringent than the reference control technology. EWW<sub>1ACTUAL</sub> is calculated according to paragraph (h)(5) of this section.

EWV<sub>1c</sub> = Emissions from each Group 1 wastewater stream i if the reference control technology had been applied to the un-

controlled emissions. EWW<sub>1c</sub> is calculated according to paragraph (h)(5) of this section.

EWV<sub>2ACTUAL</sub> = Emissions from each Group 2 wastewater stream i that is controlled.

EWV<sub>2ACTUAL</sub> is calculated according to paragraph (h)(5) of this section.

EWV<sub>2IBASE</sub> = Emissions from each Group 2 wastewater stream i at the baseline date.

EWV<sub>2IBASE</sub> is calculated according to paragraph (h)(5) of this section.

(0.1) EBFEPV<sub>1iu</sub> = Emissions from each Group 1 batch front-end process vent i if the applicable standard had been applied to the uncontrolled emissions. EBFEPV<sub>1iu</sub> is calculated according to paragraph (h)(6)(i) of this section.

EBFEPV<sub>1ACTUAL</sub> = Emissions from each Group 1 batch front-end process vent i that is controlled to a level more stringent than the applicable standard. EBFEPV<sub>1ACTUAL</sub> is calculated according to paragraph (h)(6)(ii) of this section.

(0.1) EABV<sub>1iu</sub> = Emissions from each Group 1 aggregate batch vent stream i if the applicable standard had been applied to the uncontrolled emissions. EABV<sub>1iu</sub> is calculated according to paragraph (h)(7)(i) of this section.

EABV<sub>1ACTUAL</sub> = Emissions from each Group 1 aggregate batch vent stream i that is controlled to a level more stringent than the applicable standard. EABV<sub>1ACTUAL</sub> is calculated according to paragraph (h)(7)(ii) of this section.

EBFEPV<sub>2IBASE</sub> = Emissions from each Group 2 batch front-end process vent i at the baseline date. EBFEPV<sub>2IBASE</sub> is calculated according to paragraph (h)(6)(iv) of this section.

EBFEPV<sub>2ACTUAL</sub> = Emissions from each Group 2 batch front-end process vent i that is controlled. EBFEPV<sub>2ACTUAL</sub> is calculated according to paragraph (h)(6)(iii) of this section.

EABV<sub>2IBASE</sub> = Emissions from each Group 2 aggregate batch vent stream i at the baseline date. EABV<sub>2IBASE</sub> is calculated according to paragraph (h)(7)(iv) of this section.

EABV<sub>2ACTUAL</sub> = Emissions from each Group 2 aggregate batch vent stream i that is controlled. EABV<sub>2ACTUAL</sub> is calculated according to paragraph (h)(7)(iii) of this section.

n = Number of Group 1 emission points included in the emissions average. The value of n is not necessarily the same for continuous front-end process vents, batch front-end process vents, aggregate batch vent streams, storage vessels, wastewater streams, or the collection of process sections within the affected source.

m = Number of Group 2 emission points included in the emissions average. The value of m is not necessarily the same for continuous front-end process vents, batch front-end process vents, aggregate batch vent streams, storage vessels, wastewater

streams, or the collection of process sections within the affected source.

(i) Except as specified in paragraph (h)(1)(iv) of this section, for an emission point controlled using a reference control technology, the percent reduction for calculating credits shall be no greater than the nominal efficiency associated with the reference control technology, unless a higher nominal efficiency is assigned as specified in paragraph (h)(1)(ii) of this section.

(ii) For an emission point controlled to a level more stringent than the reference control technology, the nominal efficiency for calculating credits shall be assigned as described in paragraph (i) of this section. A reference control technology may be approved for use in a different manner and assigned a higher nominal efficiency according to the procedures in paragraph (i) of this section. A reference control technology may be approved for use in a different manner and assigned a higher nominal efficiency according to the procedure in paragraph (i) of this section.

(iii) For an emission point controlled using a pollution prevention measure, except for back-end process operation emissions, the nominal efficiency for calculating credits shall be as determined as described in paragraph (j) of

this section. Emissions for back-end process operations shall be determined as described in paragraph (h)(4) of this section.

(iv) For Group 1 and Group 2 batch front-end process vents and Group 1 and Group 2 aggregate batch vent streams, the percent reduction for calculating credits shall be the percent reduction determined according to the procedures in paragraphs (h)(6)(ii) and (h)(6)(iii) of this section for batch front-end process vents and paragraphs (h)(7)(ii) and (h)(7)(iii) of this section for aggregate batch vent streams.

(2) Emissions from continuous front-end process vents shall be determined as follows:

(i) Uncontrolled emissions from Group 1 continuous front-end process vents,  $ECFEPV1_{iu}$ , shall be calculated according to the procedures and equation for  $ECFEPV_{iu}$  in paragraphs (g)(2)(i) and (g)(2)(ii) of this section.

(ii) Actual emissions from Group 1 continuous front-end process vents controlled using a technology with an approved nominal efficiency greater than 98 percent or a pollution prevention measure achieving greater than 98 percent emission reduction,  $ECFEPV1_{iACTUAL}$ , shall be calculated using Equation 42.

$$ECFEPV1_{iACTUAL} = ECFEPV1_{iu} \left( 1 - \frac{\text{Nominal efficiency \%}}{100\%} \right) \quad [\text{Eq. 42}]$$

Where:

$ECFEPV1_{iACTUAL}$  = Emissions for each Group 1 continuous front-end process vent *i* that is controlled to a level more stringent than the reference control technology.

$ECFEPV1_{iu}$  = Emissions from each Group 1 continuous front-end process vent *i* if the reference control technology had been applied to the uncontrolled emissions.

(iii) The following procedures shall be used to calculate actual emissions

from Group 2 continuous front-end process vents,  $ECFEPV2_{iACTUAL}$ :

(A) For a Group 2 continuous front-end process vent controlled by a control device, a recovery device applied as a pollution prevention project, or a pollution prevention measure, where the control achieves a percent reduction less than or equal to 98 percent reduction, Equation 43 shall be used.

$$ECFEPV2_{iACTUAL} = ECFEPV2_{iu} \left( 1 - \frac{\text{Percent reduction}}{100\%} \right) \quad [\text{Eq. 43}]$$

Where:

ECFEPV<sub>2iACTUAL</sub>=Emissions from each Group 2 continuous

front-end process vent i that is controlled.

ECFEPV<sub>2iu</sub>=Emissions from each Group 2 continuous front-end process vent i if the reference control technology had been applied to the uncontrolled emissions.

(1) ECFEPV<sub>2iu</sub> shall be calculated according to the equations and procedures for ECFEPV<sub>iu</sub> in paragraphs (g)(2)(i) and (g)(2)(ii) of this section, except as provided in paragraph (h)(2)(iii)(A)(3) of this section.

(2) The percent reduction shall be calculated according to the procedures in paragraphs (g)(2)(iii)(B)(1) through (g)(2)(iii)(B)(3) of this section, except as provided in paragraph (h)(2)(iii)(A)(4) of this section.

(3) If a recovery device was added as part of a pollution prevention project,

ECFEPV<sub>2iu</sub> shall be calculated prior to that recovery device. The equation for ECFEPV<sub>iu</sub> in paragraph (g)(2)(ii) of this section shall be used to calculate ECFEPV<sub>2iu</sub>; however, the sampling site for measurement of vent stream flow rate and organic HAP concentration shall be at the inlet of the recovery device.

(4) If a recovery device was added as part of a pollution prevention project, the percent reduction shall be demonstrated by conducting a performance test at the inlet and outlet of that recovery device.

(B) For a Group 2 continuous front-end process vent controlled using a technology with an approved nominal efficiency greater than 98 percent or a pollution prevention measure achieving greater than 98 percent reduction, Equation 44 shall be used.

$$\text{ECFEPV}_{2i\text{ACTUAL}} = \text{ECFEPV}_{2iu} \left( 1 - \frac{\text{Nominal efficiency \%}}{100\%} \right) \quad [\text{Eq. 44}]$$

Where:

ECFEPV<sub>2iACTUAL</sub>=Emissions from each Group 2 continuous

front-end process vent i that is controlled.

ECFEPV<sub>2iu</sub>=Emissions from each Group 2 continuous front-end process vent i if the reference control technology had been applied to the uncontrolled emissions.

(iv) Emissions from Group 2 continuous front-end process vents at baseline, ECFEPV<sub>2iBASE</sub>, shall be calculated as follows:

(A) If the continuous front-end process vent was uncontrolled on November 15, 1990, ECFEPV<sub>2iBASE</sub>=ECFEPV<sub>2iu</sub> and shall be calculated according to the procedures and equation for ECFEPV<sub>iu</sub> in paragraphs (g)(2)(i) and (g)(2)(ii) of this section.

(B) If the continuous front-end process vent was controlled on November 15, 1990, Equation 45 shall be used.

$$\text{ECFEPV}_{2i\text{BASE}} = \text{ECFEPV}_{2iu} \left( 1 - \frac{\text{Percent reduction}}{100\%} \right) \quad [\text{Eq. 45}]$$

(1) ECFEPV<sub>2iu</sub> is calculated according to the procedures and equation for ECFEPV<sub>iu</sub> in paragraphs (g)(2)(i) and (g)(2)(ii) of this section.

(2) The percent reduction shall be calculated according to the procedures specified in paragraphs (g)(2)(iii)(B)(1) through (g)(2)(iii)(B)(3) of this section.

(C) If a recovery device was added as part of a pollution prevention project initiated after November 15, 1990, ECFEPV<sub>2iBASE</sub>=ECFEPV<sub>2iu</sub>, where ECFEPV<sub>2iu</sub> is calculated according to paragraph (h)(2)(iii)(A)(3) of this section.

## Environmental Protection Agency

## § 63.503

(3) Emissions from storage vessels shall be calculated using the procedures specified in § 63.150(h)(3).

(4) Emissions from back-end process operations shall be calculated as follows:

(i)  $EBEP_{ACTUAL}$  shall be calculated according to the equation for  $EBEP_{ACTUAL}$  contained in paragraph (g)(4)(i) of this section.

(ii)  $EBEP_c$  shall be calculated according to the equation for  $EBEP_c$  contained in paragraph (g)(4)(ii) of this section.

(5) Emissions from wastewater streams shall be calculated using the procedures specified in § 63.150(h)(5).

(6) Emissions from batch front-end process vents shall be determined as follows:

(i) Uncontrolled emissions from Group 1 batch front-end process vents ( $EBFEPV1_{iu}$ ) shall be calculated according to the procedures specified in § 63.488(b).

(ii) Actual emissions from Group 1 batch front-end process vents controlled to a level more stringent than the standard ( $EBFEPV1_{iACTUAL}$ ) shall be calculated using Equation 46, where percent reduction is for the batch cycle:

$$EBFEPV1_{iACTUAL} = EBFEPV1_{iu} \left( 1 - \frac{\text{Percent reduction}}{100\%} \right) \quad [\text{Eq. 46}]$$

(A) The percent reduction for the batch cycle shall be calculated according to the procedures in § 63.490(c)(2).

(B) The percent reduction for control devices shall be determined according to the procedures in § 63.490(c)(2)(i) through (c)(2)(iii).

(C) The percent reduction of pollution prevention measures shall be calculated using the procedures specified in paragraph (j) of this section.

(iii) Actual emissions from Group 2 batch front-end process vents ( $EBFEPV2_{iACTUAL}$ ) shall be calculated using Equation 47 and the procedures in paragraphs (h)(6)(ii)(A) through (h)(6)(ii)(C) of this section.  $EBFEPV2_{iu}$  shall be calculated using the procedures specified in § 63.488(b).

$$EBFEPV2_{iACTUAL} = EBFEPV2_{iu} \times \left( 1 - \frac{\text{Percent reduction}}{100\%} \right) \quad [\text{Eq. 47}]$$

(iv) Emissions from Group 2 batch front-end process vents at baseline shall be calculated as follows:

(A) If the batch front-end process vent was uncontrolled on November 15, 1990,  $EBFEPV2_{iBASE} = EBFEPV2_{iu}$  and shall be calculated according to the procedures using the procedures specified in § 63.488(b).

(B) If the batch front-end process vent was controlled on November 15, 1990, use Equation 48 and the procedures in paragraphs (h)(6)(ii)(A) through (h)(6)(ii)(C) of this section.  $EBFEPV2_{iu}$  shall be calculated using the procedures specified in § 63.488(b).

$$EBFEPV2_{iBASE} = EBFEPV2_{iu} \left( 1 - \frac{\text{Percent reduction}}{100\%} \right) \quad [\text{Eq. 48}]$$

**§ 63.503**

**40 CFR Ch. I (7–1–11 Edition)**

(7) Emissions from aggregate batch vent streams shall be determined as follows:

(i) Uncontrolled emissions from Group 1 aggregate batch vent streams ( $EABV_{1iu}$ ) shall be calculated according to the procedures and equation for

$EABV_{1iu}$  in paragraphs (g)(7)(i) and (g)(7)(ii) of this section.

(ii) Actual emissions from Group 1 aggregate batch vent streams controlled to a level more stringent than the standard ( $EABV_{1iACTUAL}$ ) shall be calculated using Equation 49:

$$EABV_{1iACTUAL} = EABV_{1iu} \left( 1 - \frac{\text{Percent reduction}}{100\%} \right) \quad [\text{Eq. 49}]$$

(A) The percent reduction for control devices shall be determined according to the procedures in § 63.490(e).

(B) The percent reduction of pollution prevention measures shall be calculated using the procedures specified in paragraph (j) of this section.

(iii) Actual emissions from Group 2 aggregate batch vents streams

( $EABV_{2iACTUAL}$ ) shall be calculated using Equation 50 and the procedures in paragraphs (h)(7)(ii)(A) through (h)(7)(ii)(B) of this section.  $EABV_{2iu}$  shall be calculated according to the equations and procedures for  $EABV_{1iu}$  in paragraphs (g)(7)(i) and (g)(7)(ii) of this section.

$$EABV_{2iACTUAL} = EABV_{2iu} \left( 1 - \frac{\text{Percent reduction}}{100\%} \right) \quad [\text{Eq. 50}]$$

(iv) Emissions from Group 2 aggregate batch vent streams at baseline shall be calculated as follows:

(A) If the aggregate batch vent stream was uncontrolled on November 15, 1990,  $EABV_{2iBASE} = EABV_{2iu}$  and shall be calculated according to the procedures and equation for  $EABV_{1iu}$  in paragraph (g)(7)(i) and (g)(7)(ii) of this section.

(B) If the aggregate batch vent stream was controlled on November 15, 1990, use Equation 51 and the procedures in paragraphs (h)(7)(ii)(A) through (h)(7)(ii)(B) of this section.  $EABV_{2iu}$  shall be calculated according to the equations and procedures for  $EABV_{1iu}$  in paragraphs (g)(7)(i) and (g)(7)(ii) of this section.

$$EABV_{2iBASE} = EABV_{2iu} \left( 1 - \frac{\text{Percent reduction}}{100\%} \right) \quad [\text{Eq. 51}]$$

(i) The following procedures shall be followed to establish nominal efficiencies for emission controls for storage vessels, continuous front-end process vents, and process wastewater streams. The procedures in paragraphs (i)(1) through (i)(6) of this section shall be followed for control technologies that are different in use or design from the reference control technologies and

achieve greater percent reductions than the percent efficiencies assigned to the reference control technologies in § 63.111.

(1) In those cases where the owner or operator is seeking permission to take credit for use of a control technology that is different in use or design from the reference control technology, and the different control technology will be

used in more than three applications at a single plant-site, the owner or operator shall submit the information specified in paragraphs (i)(1)(i) through (i)(1)(iv) of this section, as specified in § 63.506(e)(7)(ii), to the Director of the EPA Office of Air Quality Planning and Standards, in writing.

(i) Emission stream characteristics of each emission point to which the control technology is or will be applied, including the kind of emission point, flow, organic HAP concentration, and all other stream characteristics necessary to design the control technology or determine its performance.

(ii) Description of the control technology, including design specifications.

(iii) Documentation demonstrating to the Administrator's satisfaction the control efficiency of the control technology. This may include performance test data collected using an appropriate EPA Method or any other method validated according to Method 301, 40 CFR part 63, appendix A. If it is infeasible to obtain test data, documentation may include a design evaluation and calculations. The engineering basis of the calculation procedures and all inputs and assumptions made in the calculations shall be documented.

(iv) A description of the parameter or parameters to be monitored to ensure that the control technology will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) The Administrator shall determine within 120 days whether an application presents sufficient information to determine nominal efficiency. The Administrator reserves the right to request specific data in addition to the items listed in paragraph (i)(1) of this section.

(3) The Administrator shall determine within 120 days of the submittal of sufficient data whether a control technology shall have a nominal efficiency and the level of that nominal efficiency. If, in the Administrator's judgment, the control technology achieves a level of emission reduction greater than the reference control technology for a particular kind of emission point, the Administrator will

publish a FEDERAL REGISTER notice establishing a nominal efficiency for the control technology.

(4) The Administrator may grant permission to take emission credits for use of the control technology. The Administrator may also impose requirements that may be necessary to ensure operation and maintenance to achieve the specified nominal efficiency.

(5) In those cases where the owner or operator is seeking permission to take credit for use of a control technology that is different in use or design from the reference control technology and the different control technology will be used in no more than three applications at a single plant site, the owner or operator shall submit the information listed in paragraph (i)(1)(i) as specified in § 63.506(e)(7)(ii) to the Administrator.

(i) In these instances, use and conditions for use of the control technology may be approved by the permitting authority as part of an operating permit application or modification. The permitting authority shall follow the procedures specified in paragraphs (i)(2) through (i)(4) of this section except that, in these instances, a FEDERAL REGISTER notice is not required to establish the nominal efficiency for the different technology.

(ii) If, in reviewing the application, the permitting authority believes the control technology has broad applicability for use by other sources, the permitting authority shall submit the information provided in the application to the Director of the EPA Office of Air Quality Planning and Standards. The Administrator shall review the technology for broad applicability and may publish a FEDERAL REGISTER notice; however, this review shall not affect the permitting authority's approval of the nominal efficiency of the control technology for the specific application.

(6) If, in reviewing an application for a control technology for an emission point, the Administrator or permitting authority determines that the control technology is not different in use or design from the reference control technology, the Administrator or permitting authority shall deny the application.

(j) The following procedures shall be used for calculating the efficiency (percent reduction) of pollution prevention measures for storage vessels, continuous front-end process vents, batch front-end process vents, aggregate batch vent streams, and wastewater streams:

(1) A pollution prevention measure is any practice which meets the criteria of paragraphs (j)(1)(i) and (j)(1)(ii) of this section.

(i) A pollution prevention measure is any practice that results in a lesser quantity of organic HAP emissions per unit of product released to the atmosphere prior to out-of-process recycling, treatment, or control of emissions, while the same product is produced.

(ii) Pollution prevention measures may include substitution of feedstocks that reduce organic HAP emissions; alterations to the production process to reduce the volume of materials released to the environment; equipment modifications; housekeeping measures; and in-process recycling that returns waste materials directly to production

as raw materials. Production cutbacks do not qualify as pollution prevention.

(2) The emission reduction efficiency of pollution prevention measures implemented after November 15, 1990, may be used in calculating the actual emissions from an emission point in the debit and credit equations in paragraphs (g) and (h) of this section.

(i) For pollution prevention measures, the percent reduction is used in the equations in paragraphs (g)(2) through (g)(7) of this section and paragraphs (h)(2) through (h)(7) of this section is the percent difference between the monthly organic HAP emissions for each emission point after the pollution prevention measure for the most recent month versus monthly emissions from the same emission point before the pollution prevention measure, adjusted by the volume of product produced during the two monthly periods.

(ii) Equation 52 shall be used to calculate the percent reduction of a pollution prevention measure for each emission point.

$$\text{Percent reduction} = E_B - \frac{\left( \frac{E_{pp} \times P_B}{P_{pp}} \right)}{E_B} \times 100 \quad [\text{Eq. 52}]$$

where:

Percent reduction=Efficiency of pollution prevention measure (percent organic HAP reduction).

$E_B$ =Monthly emissions before the pollution prevention measure, Mg/month, determined as specified in paragraphs (j)(2)(ii)(A), (j)(2)(ii)(B), and (j)(2)(ii)(C) of this section.

$E_{pp}$ =Monthly emissions after the pollution prevention measure, Mg/month, as determined for the most recent month, determined as specified in either paragraphs (j)(2)(ii)(D) or (j)(2)(ii)(E) of this section.

$P_B$ =Monthly production before the pollution prevention measure, Mg/month, during the same period over which  $E_B$  is calculated.

$P_{pp}$ =Monthly production after the pollution prevention measure, Mg/month, as determined for the most recent month.

(A) The monthly emissions before the pollution prevention measure,  $E_B$ , shall

be determined in a manner consistent with the equations and procedures in paragraph (g)(2) of this section for continuous front-end process vents, paragraph (g)(3) of this section for storage vessels, paragraph (g)(6) of this section for batch front-end process vents, and paragraph (g)(7) of this section for aggregate batch vent streams.

(B) For wastewater,  $E_B$  shall be calculated according to § 63.150(j)(2)(ii)(B).

(C) If the pollution prevention measure was implemented prior to September 5, 1996, records may be used to determine  $E_B$ .

(D) The monthly emissions after the pollution prevention measure,  $E_{pp}$ , may be determined during a performance test or by a design evaluation and documented engineering calculations. Once an emissions-to-production ratio

## Environmental Protection Agency

## § 63.503

has been established, the ratio may be used to estimate monthly emissions from monthly production records.

(E) For wastewater,  $E_{pp}$  shall be calculated according to § 63.150(j)(2)(ii)(E).

(iii) All equations, calculations, test procedures, test results, and other information used to determine the percent reduction achieved by a pollution prevention measure for each emission point shall be fully documented.

(iv) The same pollution prevention measure may reduce emissions from multiple emission points. In such cases, the percent reduction in emissions for each emission point shall be calculated.

(v) For the purposes of the equations in paragraphs (h)(2) through (h)(7) of this section, used to calculate credits for emission points controlled more stringently than the reference control technology or standard, the nominal efficiency of a pollution prevention measure is equivalent to the percent reduction of the pollution prevention measure. When a pollution prevention measure is used, the owner or operator of an affected source is not required to apply to the Administrator for a nominal efficiency and is not subject to paragraph (i) of this section.

(k) The owner or operator shall demonstrate that the emissions from the emission points proposed to be included in the emissions average will not result in greater hazard, or at the option of the Administrator, greater risk to human health or the environment than if the emission points were controlled according to the provisions in §§ 63.484, 63.485, 63.486, 63.493, and 63.501.

(l) This demonstration of hazard or risk equivalency shall be made to the satisfaction of the Administrator.

(i) The Administrator may require owners and operators to use specific methodologies and procedures for making a hazard or risk determination.

(ii) The demonstration and approval of hazard or risk equivalency shall be made according to any guidance that the Administrator makes available for use.

(2) Owners and operators shall provide documentation demonstrating the hazard or risk equivalency of their proposed emissions average in their operating permit application or in their

Emissions Averaging Plan if an operating permit application has not yet been submitted.

(3) An Emissions Averaging Plan that does not demonstrate hazard or risk equivalency to the satisfaction of the Administrator shall not be approved. The Administrator may require such adjustments to the Emissions Averaging Plan as are necessary in order to ensure that the emissions average will not result in greater hazard or risk to human health or the environment than would result if the emission points were controlled according to §§ 63.484, 63.485, 63.486, 63.493, and 63.501.

(4) A hazard or risk equivalency demonstration shall:

(i) Be a quantitative, bona fide chemical hazard or risk assessment;

(ii) Account for differences in chemical hazard or risk to human health or the environment; and

(iii) Meet any requirements set by the Administrator for such demonstrations.

(l) For periods of monitoring excursions, an owner or operator may request that the provisions of paragraphs (l)(1) through (l)(4) of this section be followed instead of the procedures in paragraphs (f)(2)(i) and (f)(2)(ii) of this section.

(1) The owner or operator shall notify the Administrator of monitoring excursions in the Periodic Reports as required in § 63.506(e)(6).

(2) The owner or operator shall demonstrate that other types of monitoring data or engineering calculations are appropriate to establish that the control device for the emission point was operating in such a fashion to warrant assigning full or partial credits and debits. This demonstration shall be made to the Administrator's satisfaction, and the Administrator may establish procedures for demonstrating compliance that are acceptable.

(3) The owner or operator shall provide documentation of the excursion and the other types of monitoring data or engineering calculations to be used to demonstrate that the control device for the emission point was operating in such a fashion to warrant assigning full or partial credits and debits.



(4) The Administrator may assign full or partial credit and debits upon review of the information provided.

(m) For each emission point included in an emissions average, the owner or operator shall perform testing, monitoring, recordkeeping, and reporting equivalent to that required for Group 1 emission points complying with §§ 63.484, 63.485, 63.486, 63.493, and 63.501, as applicable. If back-end process operations are included in an emissions average, the owner or operator shall perform testing, monitoring, recordkeeping, and reporting equivalent to that required for back-end process operations complying with § 63.493. The specific requirements for continuous front-end process vents, batch front-end process vents, aggregate batch vent streams, storage vessels, back-end process operations, and wastewater are identified in paragraphs (m)(1) through (m)(6) of this section.

(1) For each continuous front-end process vent equipped with a flare, incinerator, boiler, or process heater, as appropriate to the control technique:

(i) Determine whether the continuous front-end process vent is Group 1 or Group 2 according to the procedures specified in § 63.115 and as required by § 63.485;

(ii) Conduct initial performance tests to determine percent reduction as specified in § 63.116 and as required by § 63.485; and

(iii) Monitor the operating parameters, keep records, and submit reports as specified in §§ 63.114, 63.117(a), and 63.118(a) and (f), as required, for the specific control device as required by § 63.485.

(2) For each continuous front-end process vent equipped with a carbon adsorber, absorber, or condenser but not equipped with a control device, as appropriate to the control technique:

(i) Determine the flow rate, organic HAP concentration, and TRE index value according to the procedures specified in § 63.115; and

(ii) Monitor the operating parameters, keep records, and submit reports according to the procedures specified in §§ 63.114, 63.117(a), and 63.118(b) and (f), as required, for the specific recovery device, and as required by § 63.485.

(3) For each storage vessel controlled with an internal floating roof, external roof, or a closed vent system with a control device, as appropriate to the control technique:

(i) Perform the monitoring or inspection procedures according to the procedures specified in § 63.120, and as required by § 63.484;

(ii) Perform the reporting and recordkeeping procedures according to the procedures specified in §§ 63.122 and 63.123, and as required by § 63.484; and

(iii) For closed vent systems with control devices, conduct an initial design evaluation and submit an operating plan according to the procedures specified in § 63.120(d) and § 63.122(b), and as required by § 63.484.

(4) For back-end process operations included in an emissions average:

(i) If stripping technology, and no control or recovery device, is used to reduce back-end process operation emissions, the owner or operator shall implement the following portions of this subpart:

(A) Paragraphs (b)(1), (b)(2), and (b)(3) of § 63.495, paragraph (b) of § 63.498, and the applicable provisions of § 63.499, or

(B) Paragraphs (c)(1), (2), and (3) of § 63.495, paragraph (c) of § 63.498, and the applicable provisions of § 63.499;

(ii) If a control or recovery device is used to reduce back-end process operation emissions, the owner or operator of the affected source shall comply with §§ 63.496, 63.497, 63.498(d), and the applicable provisions of § 63.499, and shall implement the provisions of these sections.

(5) For wastewater emission points, as appropriate to the control techniques:

(i) For wastewater treatment processes, conduct tests according to the procedures specified in § 63.138(i) and (j), and as required by § 63.501;

(ii) Conduct inspections and monitoring according to the procedures specified in § 63.143, and as required by § 63.501;

(iii) Implement a recordkeeping program according to the procedures specified in § 63.147, and as required by § 63.501; and

(iv) Implement a reporting program according to the procedures specified in § 63.146, and as required by § 63.501.

(6) For each batch front-end process vent and aggregate batch vent stream equipped with a control device, as appropriate to the control technique:

(i) Determine whether the batch front-end process vent or aggregate batch vent stream is Group 1 or Group 2 according to the procedures specified in § 63.488;

(ii) Conduct performance tests according to the procedures specified in § 63.490;

(iii) Conduct monitoring according to the procedures specified in § 63.489; and

(iv) Perform the recordkeeping and reporting procedures according to the procedures specified in §§ 63.491 and 63.492.

(7) If an emission point in an emissions average is controlled using a pollution prevention measure or a device or technique for which no monitoring parameters or inspection procedures are required by §§ 63.484, 63.485, 63.486, 63.493, or § 63.501, the owner or operator shall submit the information specified in § 63.506(f) for alternate monitoring parameters or inspection procedures in the Emissions Averaging Plan or operating permit application.

(n) Records of all information required to calculate emission debits and credits shall be retained for 5 years.

(o) Precompliance Reports, Emission Averaging Plans, Notifications of Compliance Status, Periodic Reports, and other reports shall be submitted as required by § 63.506.

[62 FR 46925, Sept. 5, 1996, as amended at 64 FR 11543, Mar. 9, 1999; 65 FR 38071, June 19, 2000; 76 FR 22592, Apr. 21, 2011]

**§ 63.504 Additional requirements for performance testing.**

(a) Performance testing shall be conducted in accordance with § 63.7(a)(1), (a)(3), (d), (e)(1), (e)(2), (e)(4), (g), and (h), with the exceptions specified in paragraphs (a)(1) through (a)(5) of this section and the additions specified in paragraph (b) of this section. Sections 63.484 through 63.501 also contain specific testing requirements.

(1) Performance tests shall be conducted at maximum representative operating conditions achievable during one of the time periods described in paragraph (a)(1)(i) of this section, without causing any of the situations de-

scribed in paragraph (a)(1)(ii) of this section to occur. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(i) The 6-month period that ends 2 months before the Notification of Compliance Status is due, according to § 63.506(e)(5); or the 6-month period that begins 3 months before the performance test and ends 3 months after the performance test.

(ii) Causing damage to equipment; necessitating that the owner or operator make product that does not meet an existing specification for sale to a customer; or necessitating that the owner or operator make product in excess of demand.

(2) References in § 63.7(g) to the Notification of Compliance Status requirements in § 63.9(h) shall refer to the requirements in § 63.506(e)(5).

(3) Because the site-specific test plans in § 63.7(c)(3) are not required, § 63.7(h)(4)(ii) is not applicable.

(4) The owner or operator shall notify the Administrator of the intent to conduct a performance test at least 30 days before the performance test is scheduled, to allow the Administrator the opportunity to have an observer present during the test. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Administrator as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator by mutual agreement.

(5) Performance tests shall be performed no later than 150 days after the compliance dates specified in this subpart (i.e., in time for the results to be included in the Notification of Compliance Status), rather than according to the time periods in § 63.7(a)(2).

(b) Data shall be reduced in accordance with the EPA approved methods specified in the applicable subpart or, if other test methods are used, the data